

SECTION 25 - ENCROACHMENT STANDARDS AND REQUIREMENTS

A. Nonnavigational Encroachments

Restricted Approval

Nonnavigational encroachments in, on or over navigable waters of the State will normally not be approved by the Department. Nonnavigational encroachments will be considered **only in exceptional circumstances** involving significant environmental, economic, or social benefits to the public. Approval under these circumstances is authorized only when consistent with the public trust doctrine and when no other feasible alternative with less adverse impacts to the public trust values is viable ([IDAPA 20.03.04.030.02](#)).

B. Littoral Right Lines

Chord Method

For the purposes of permitting encroachments and ensuring that riparian rights are not infringed upon by encroachment placement, riparian right lines should be determined by applying the “Chord Method.” The result shall be that landowners with riparian rights will have unobstructed access to the navigable waters along all points of their riparian land.

Plat Map

Area Staff shall apply the Chord Method (described below) upon processing each encroachment permit application using a current county plat map with parcel boundaries (provided by the applicant or their agent).

Concave or Convex

The Chord Method can and shall be applied whether the shoreline is straight, concave (bay or inlet) or convex (point or peninsula). In most cases, the Chord Method should yield a riparian right line that is approximately perpendicular to generally straight shorelines and approximately perpendicular to the tangent of curved shorelines (applicable to both bays and points) and is consistent with the definition in [IDAPA 20.03.04.010.34](#).

Unusual Circumstances/Results

Area Staff shall consult with the Program Manager when the Chord Method does not appear to yield a

riparian right line pattern that is consistent with this policy or when the subject property or adjoining waterfront properties include transitions to points, bays or significant changes in the shoreline. When use of the Chord Method is not straightforward or does not yield a pattern consistent with this policy, the Program Manager, in consultation with Area, Bureau, Department and Legal Staff, shall make a final determination of the riparian right line.

Changes in Riparian Right Lines

Riparian right lines are altered when an upland parcel boundary is changed or created and the point of intersection between the parcel boundary and the artificial or ordinary high water mark (whichever is applicable) is either moved or created.

Determining riparian right lines is not a function of existing, proposed, or future encroachments. If adjoining landowners consent in writing to a proposed encroachment location, it may be permitted, regardless of the actual location of the riparian right lines ([IDAPA 20.03.04.025.02](#)).

Binding Decisions/Agreements

In addition, legal property line determinations, including littoral lines, are binding through written property owner agreements or court determinations.

Artificial High Water Marks

The Department recognizes that an encroachment may be legally permitted (satisfying the riparian buffers established in IDAPA 20.30.04) on a water body with an artificial high water mark that is actually located over a submerged portion of an adjoining waterfront property.

Methodology

The Chord Method is described in *Wisconsin Water Law – A Guide to Water Rights and Regulations - G3622* (Kent and Dudiak, 2001). The Chord Method locates riparian right lines by identifying the points of intersection with the parcel boundaries and the artificial or ordinary high water mark (whichever is applicable). These points are connected by chords. The riparian right lines fall along the bisector of the angles created by the chords. The riparian right lines then extend to the line of navigability (see Figure 5-2 below).

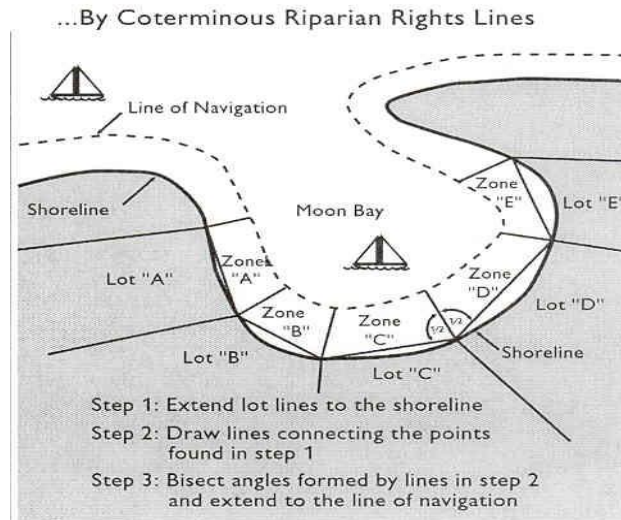


Figure 5-2

C. Length of Navigational Encroachments

Historically Established Line of Navigability

The Department shall recognize the historically established line of navigation in the area of a new navigational encroachment application ([IDAPA 20.03.04.010.20](#)). When the line of navigability is determined by existing permitted encroachments, applicants may apply for a navigational encroachment that extends out to the established line of navigability. This length shall be permitted, unless site specific conditions warrant a reduction or extension in length.

If the permitting of a single-family or two-family encroachment at or within the existing line of navigability results in the encroachment exceeding the standards set forth in [IDAPA 20.03.04.015.01](#) (including encroachment length and depth), variances shall be issued in accordance with [IDAPA 20.30.04.015.01.d](#). Language reflecting the variance shall be included in the general conditions section of the encroachment permit.

Establishing a New Line of Navigability

When the line of navigability is not established in the area of a new navigational encroachment permit application, the Area shall consider the definition of the "line of navigability" in [IDAPA 20.03.04.015.13.d](#) which allows for the sufficient draft for watercraft

customarily used on that body of water.

When permitting a single-family or two-family encroachment in an area with no existing line of navigability, the permitted encroachment length should not exceed 100 feet unless site specific considerations warrant a variance ([IDAPA 20.03.04.015.01.d](#)). Language reflecting the variance shall be included in the general conditions section of the encroachment permit. The department may require shorter docks when conditions warrant ([IDAPA 20.03.04.015.01.c](#)).

The Area shall consider the public trust values ([Idaho Code 58-1301 and 58-12](#)) when permitting an encroachment whereby an extension or establishment of a new line of navigability is requested in an application.

D. Length of Nonnavigational Encroachments

Case by Case

The nature of non-navigational encroachments is such that encroachment length determination, if applicable, will be determined on a case by case basis. Area staff should use the navigational encroachment criteria in Subsection C, as appropriate (public trust values in [Idaho Code 58-1301 and 58-12](#)), when permitting a non-navigational encroachment that involves line of navigability issues.

Floating toys should be kept within the line of navigability, especially those associated with single and two-family docks. County ordinances may govern most floating toys. Enforcement is generally left up to the county marine deputies. Temporary permits may be used for water ski courses or other encroachments that are of a temporary nature and are outside the line of navigability.

E. Encroachment Standards

Design and Sustainability

All encroachments shall be designed and installed by the applicant, agent, or marine contractor to withstand normally anticipated weather conditions in the area. All docks, piers, or floats shall be adequately secured to pilings or anchors to prevent displacement by ice, wind, or waves ([IDAPA](#)

[20.03.04.015.13.f](#)). Final design and engineering integrity shall rest with the applicant or their agent.

Single-Family and Joint Two-Family Dock Standards and Requirements

The following standards and requirements apply for single-family and two-family docks:

Eligible Applicants

- One single-family dock shall be permitted for the owner of a legally established littoral lot, or lots, with associated littoral rights ([IDAPA 20.03.04.010.36](#)). A legally established lot is a separate tax lot or parcel, which has been approved by the local planning and zoning commission or other appropriate governmental unit. A waterfront owner with more than one contiguous waterfront lot shall only be permitted one dock.

Structure Width

- No part of the dock, float or pier waterward of the OHWM or AHWL shall exceed ten (10) feet in width ([IDAPA 20.03.04.015.01.a](#)).

Ramp, Pier and Approach Width

- In order to minimize impacts on the near shore area, ramps are recommended to be no wider than three (3) feet, and piers and approaches are recommended to be six (6) feet in width. Site specific conditions may require wider structures.

Square Footage

- Total decked surface area waterward of the OHWM or AHWL shall not exceed seven hundred (700) square feet, including piers, ramps, approaches for a single-family encroachment and shall not exceed one thousand one hundred (1,100) square feet, including piers, ramps, approaches for a two-family encroachment ([IDAPA 20.03.04.015.01.b](#)). A variance to these standards can be granted when justified by site-specific conditions such as distance to the line of navigability ([IDAPA 20.03.04.015.01.d](#)). The application and permit should state the total square footage of the encroachment that extends beyond the ordinary or artificial high water mark.

Dock Length

- No portion of the docking facility shall extend beyond the line of navigability ([IDAPA 20.03.04.015.01.c](#)).

Orientation

- Where feasible, the major portions (not slip extensions or the ends of T or L docks) of all docks, floats, piers and similar structures shall be constructed approximately perpendicular to the general shoreline ([IDAPA 20.03.04.015.13.c](#)). The orientation of these encroachments, therefore, will typically fall on the shortest line that can be drawn from the dock's point of origin on the OHWM or AHWL out to the line of navigability.

Location

- Where feasible, all docks, floats, piers, and similar structures shall be located near the center of the upland lot.

Front Footage and Setback Single-Family

- Riparian ownership of a minimum of twenty-five (25) feet of frontage is required to permit a single-family dock ([IDAPA 20.03.04.010.36](#)). The encroachment must be located at least ten (10) feet from the riparian right line, unless approved by the adjacent riparian owner ([IDAPA 20.03.04.015.13.e](#)).

Front Footage and Setback Two-Family

- Two adjoining owners must have a minimum of fifty (50) feet of combined riparian ownership to permit a two-family dock ([IDAPA 20.03.04.015.39](#)). The encroachment should be located on the common littoral right line. It must be located at least ten (10) feet from non-common littoral right lines, unless approved by the adjacent littoral owner ([IDAPA 20.03.04.015.13.e](#)).

Dimensions

- Permit descriptions for single-family and two-family moorage facilities shall state the number of slips along with the widths and lengths of the structure components such as,

“3’x13’ ramp, 6’x20’ approach and 35’x40’ floating 4 slip joint two family dock with 4 pilings”, “8’x20’ and 10’x30’ L-shaped pier” or “3’x17’ ramp, 6’x20’ and 40’x10’ floating T-shaped dock with 3 pilings”. All facilities with slips shall state the number of slips and not be described by the F, U or W shape.

Piling Limitation

- A maximum of four (4) pilings are normally allowed on floating structures.

Boat and Jet-ski Lifts, Ports and Ramps Standards and Requirements

The following standards and requirements apply for boat and jet-ski lifts, ports and ramps:

Single-Family Docks

- A maximum of either one (1) boat lift and two (2) jet ski lifts or two (2) boat lifts shall be permitted per single-family encroachment permit without including the square footage of the boat lift in the overall square footage calculation. Additional lifts require 50% of the foot print of the largest lifts be included in the total square footage calculation ([IDAPA 20.03.04.015.13.b.i](#)).

Two-Family Docks

- A maximum of either two (2) boat-lifts and four (4) jet ski lifts or four (4) boat lifts shall be permitted per joint two-family encroachment permit without including the square footage of the boat lift in the overall square footage calculation. Additional lifts require 50% of the foot print of the largest lifts be included in the total square footage calculation ([IDAPA 20.03.04.015.13.b.ii](#)).

Community Docks

- A maximum of either one (1) boat-lift or two (2) jet ski lifts per boat moorage shall be permitted for a community dock without including the square footage of the boat lift in the overall square footage calculation. Additional lifts require 50% of the foot print of the largest lifts be included in the total square footage calculation. Lifts placed outside of a slip shall be oriented with the long axis parallel to the dock structure ([IDAPA 20.03.04.015.13.b.iii](#)).

Setbacks

- If approved, a boat lift or jet-ski lift shall be permitted as an encroachment in aid of navigation and, as such, shall maintain the corresponding buffer from the riparian/littoral right lines of adjoining waterfront properties (10 or 25 feet depending on the type of encroachment) and shall not impede navigation ([IDAPA 20.03.04.015.13.e](#)).

Location

- If approved, a boat lift, jet-ski lift or ramp shall be located immediately adjacent to the proposed or existing dock.

Commercial Navigational Encroachment Standards and Requirements

The following standards and requirements apply for commercial navigational encroachments:

Definition

- Commercial marinas are facilities whose primary purpose is provide moorage for rental or for free to the general public ([IDAPA 20.03.04.010.09](#)).

Submerged Lands Leases

- A submerged lands lease is required for all commercial navigational encroachments located above public trust lands ([IDAPA 20.03.17.020](#)).

Fairways

- The width of fairways within a commercial marina is recommended to be 1.75 times the longest boat anticipated to be moored at the facilities. The impacts of fairways on adjacent littoral rights should be considered.

Setbacks

- Commercial navigational encroachments shall not be located closer than twenty-five (25) feet to property and/or riparian or littoral right lines without the written consent of the adjacent property owners ([IDAPA 20.03.04.015.13.e](#)).

Ramp Size

- In order to minimize impacts on the near shore area, ramps are recommended to be no

wider than three (3) feet, and piers and approaches are recommended to be six (6) feet in width. Site specific conditions may require wider structures.

Orientation

- Commercial navigational encroachments extending beyond the line of navigability should typically be oriented perpendicular to the generalized shoreline.

Parking

- Commercial marinas shall provide one (1) vehicle parking space per two (2) watercraft or float home moorages ([IDAPA 20.03.04.015.03.c](#)). Vehicle parking requirements may be adopted by City or County governments and shall apply accordingly, even if they are less restrictive. Side-ties shall not be included in the total slip count for parking requirements unless they are used for moorage beyond day use.

Side Ties

- Applications for a commercial facility shall identify any proposed side-ties for day use or long term moorage.

Dimensions

- Permit descriptions for commercial facilities shall state the number and size of slips along with the widths and lengths of the structural components such as, 3'x13' ramp, 6'x20' approach and 50'x200' sixteen (16) slip commercial piers. If side-ties are include in the permit they should be stated separately such as, 3'x13' ramp, 6'x20' approach and 50'x200' floating sixteen (16) slip commercial marina with twenty-two (22) side-ties.

Petroleum and Spills

- Petroleum boom and spill kits should be present at all commercial navigational encroachments with gas pumps.

Community Docks Standards and Requirements

The following standards and requirements apply for community docks:

Processing

- Community dock applications shall be processed as a commercial navigational encroachment ([Idaho Code 58-1306](#)).

Submerge Lands Leases

- A submerged lands lease is required for all community docks that have more than 1,100 square feet over public trust lands.

Eligible Applicants

- The area shall only accept applications for a community dock from more than two adjacent littoral owners or from littoral owners with a common littoral right ([IDAPA 20.03.04.010.11](#)). The necessary littoral rights must be established through a legal subdivision prior to acceptance of the application by the Area. A legal subdivision includes establishment of separate tax lots or parcels, which have a final plat approved by the local planning and zoning commission or other appropriate governmental unit.

Width of Structures

- No portion of the waterward structure shall exceed ten (10) feet in width, except for integrated breakwaters, when justified ([IDAPA 20.03.04.015.02.b](#)).

Width of Fairways

- The width of fairways is recommended to be 1.75 times the longest boat anticipated to be moored at the facilities. The impacts of fairways on adjacent littoral rights should be considered.

Setbacks

- The encroachment must be located at least twenty-five (25) feet from the property and/or riparian or littoral right lines. A community dock located closer than twenty-five (25) feet to adjacent riparian property lines shall be presumed to have an adverse affect on adjacent riparian property. Consent of the adjacent riparian owner/owners will automatically rebut the presumption and is required prior to approval ([IDAPA 20.03.04.015.13.e](#)).

Ramps, Piers and Approaches

- In order to minimize impacts on the near shore area, ramps are recommended to be no wider than three (3) feet, and piers and approaches are recommended to be six (6) feet in width. Site specific conditions may require wider structures.

Littoral Property

- Community docks shall have a minimum of fifty (50) lineal feet of shoreline frontage to be eligible for an encroachment permit ([IDAPA 20.03.04.015.02.c](#)). Applications must identify the littoral property dedicated to the encroachment. The littoral property need not be contiguous, but should generally be in close proximity.

Square Footage

- Moorage facilities will be limited in size as a function of the length of shoreline dedicated to the community dock. The decked surface area of a community dock will be limited to the length of shoreline times seven (7) square feet or a minimum of seven hundred (700) square feet ([IDAPA 20.03.04.015.02.c](#)). For example, one hundred twenty-five (125) feet of dedicated shoreline for a community dock times seven (7) square feet of decked surface area equals eight hundred and seventy-five (875) square feet of allowed decked surface area. Existing docks that exceed the 7 square foot limit may be re-permitted as long the permitted square footage does not increase. Area staff should encourage applicants to reduce any excessive square footage.

Breakwater

- The need for an integrated breakwater must be demonstrated by the applicant ([IDAPA 20.03.04.015.02.d](#)). Only the first ten (10) feet of width of the integrated breakwater will count toward the total square footage allowed. Decking of a breakwater exceeding ten (10) feet in width may be approved by the Area even if the additional decking exceeds the total square footage normally allowed for the community dock ([IDAPA 20.03.04.015.02.d](#)). The purpose of the

additional decking is to safely cover the breakwater structure. No side ties on the outside of the breakwater shall be approved, and permanent structures or improvements on the breakwater deck will normally not be allowed.

Side Ties

- Applications for a community facility shall indicate or identify any proposed side-ties.

Dimensions

- Permit descriptions for community facilities shall state the number of slips along with the widths and lengths of the structure components such as, “3’x13’ ramp, 6’x20’ approach and 50’x200’ floating sixteen (16)-slip community marina with four (4) piling. If side-ties are included in the permit, they should be stated separately such as, “3’x13’ ramp, 6’x20’ approach, and 50’x200’ sixteen (16)-slip and six (6) side-tie community marina pier.”

Orientation

- The length of community encroachments will be limited to the line of navigability ([IDAPA 20.03.04.015.13.d](#)) and should typically be oriented perpendicular to the generalized shoreline ([IDAPA 20.03.04.015.13.c](#)).

Buoy Standards and Requirements

The following standards and requirements apply for buoys:

Number

- One (1) mooring buoy per riparian property owner will be allowed ([IDAPA 20.03.04.015.09](#)).

Setback

- The mooring buoy anchor shall be installed a minimum of thirty (30) feet away from littoral right lines ([IDAPA 20.03.04.015.09](#)) and not beyond the established line of navigation ([IDAPA 20.03.04.025.01](#)) unless the watercraft needs additional draft.

Markings

	<ul style="list-style-type: none"> Mooring buoys shall have Coast Guard approved markings (IDAPA 20.03.04.010.02 and 20.03.04.015.12).
Encroachment Number	<ul style="list-style-type: none"> Encroachment numbers shall be displayed on mooring buoys.
Regulatory Buoys	<ul style="list-style-type: none"> Encroachment applications for regulatory buoys shall be submitted by the county commissioners or city council, where the buoys are to be located (IDAPA 20.03.04.020.07.d).
Breakwater Standards and Requirements	The following standards and requirements apply for breakwaters:
Public Use	<ul style="list-style-type: none"> Breakwater encroachments with piling or anchor system shall not exclude the public from using the breakwater as anchorage for fishing or emergency moorage, unless the breakwater is integrated into the dock structure.
Setback	<ul style="list-style-type: none"> Breakwaters shall not be located closer than twenty-five (25) feet to property and/or riparian or littoral right lines without the written consent of the adjacent property owner (IDAPA 20.03.04.015.13.e).
Function	<ul style="list-style-type: none"> Breakwaters shall be designed to disperse wave energy of known wave heights and lengths in the area of the proposed encroachment (IDAPA 20.03.04.015.06). Detailed design plans shall be submitted with the application to justify the intended use. A log boom is not a designed breakwater. In some cases, a log boom can cause more damage than it was intended to prevent.
Community and Commercial	<ul style="list-style-type: none"> Generally, breakwaters shall be permitted for community or commercial facilities. Only under unusual circumstances should breakwaters be permitted for other

navigational encroachments. Breakwaters shall only be processed as aids to navigation.

Boat Garage and Float Home Standards and Requirements

The following standards and requirements apply for boat garages and float homes:

No new facilities

- No new boat garages or float homes shall be allowed waterward of the OHWM or AHW (IDAPA [20.03.04.015.05.b](#) and [20.03.04.015.10.a](#)). The float home inventory shall be consulted to determine if a float home existed prior to 1974.

Setbacks

- Boat garage and float home encroachments shall not be located closer than twenty-five (25) feet to property and/or riparian or littoral right lines, without the written consent of the adjacent property owners (IDAPA [20.03.04.015.13.e](#)).

No Enlargement

- Applications to enlarge boat garages or float homes beyond their current permitted square feet will not be accepted (IDAPA [20.03.04.015.05.b](#) and [20.03.04.015.10.a](#)).

Boat Garage Conversion

- No domestic living space may be added to boat garages. Boat garages shall not contain waste disposal facilities.

Square Footage Calculation

- The square footage for ramps, piers and approaches associated with boat garages and float homes shall be included in the total square footage calculation (IDAPA [20.03.04.015.13.a](#)).

Replacement/Vertical Expansion

- Encroachment applications for the replacement of an existing float home or boat garage (IDAPA [20.03.04.020.04](#)) or adding another story to an existing float home shall require a new encroachment permit and proof of local building permits (IDAPA [20.03.04.015.10.c](#)).

Relocation

- Relocation of existing, permitted boat garages ([IDAPA 20.03.04.015.05.d](#)) and float homes ([IDAPA 20.03.04.015.10.b](#)) shall require a new encroachment permit. Proof of fee ownership or long-term lease of the upland adjacent to the relocation, or reconstruction site must be furnished to the Department. Applicant must either obtain a letter from the local sewer district stating that the district will serve the float home or demonstrate that sewage will be appropriately handled and treated. Applicant must also provide a statement from a professional plumber licensed in the state of Idaho that the plumbing was designed according to the International Building Code, installed properly, and has been pressure tested ([IDAPA 20.03.04.015.10.b](#)).

Plumbing and Electrical

- All plumbing and electrical work on float homes must be done in accordance with the International Building Code ([IDAPA 20.03.04.015.10.d](#)).

Sewage Disposal

- All float homes that are hooked to upland sewer or septic systems must be inspected and certified every year by a professional plumber licensed in the state of Idaho. Permittees or their designees are responsible for providing this documentation to the department ([IDAPA 20.03.04.015.10.e](#)).

Excavated or Dredged Channels/Basins Standards and Requirements

The following standards and requirements apply for excavated or dredged channels/basins:

High Standard for Approval

- Excavation or dredging will be approved only when a clear environmental, economic, or social benefit to the citizens of Idaho is apparent ([IDAPA 20.03.04.015.11.b](#)). The Department should work with the applicant to develop solutions minimizing the need for new dredging and maintenance dredging. Questions regarding the clear benefit should be discussed with the Area Supervisor and the Operations Chief in consultation with the Program Manager as needed.

Removal and Disposal

- An application for dredging shall include the volume of lake or riverbed material to be removed and the location of the spoils disposal area.

Social Benefit

- If a channel or basin is approved for an encroachment permit, the location shall be such that more than one (1) riparian lot owner can be served, when practical ([IDAPA 20.03.04.015.11.c](#)).

No Creation of Littoral Property

- No channel or basin excavations shall be permitted that will provide non-riparian property with access to navigable waters ([IDAPA 20.03.04.015.11.c](#)).

Boat Ramps and Launch Rail Systems Standards and Requirements

The following standards and requirements apply for Boat Ramps and Launch Rail Systems:

Primarily Public Use

- Boat ramps shall be issued only to city, county, state or federal agencies with parks and recreation facilities, except in the most unusual of circumstances. If a boat ramp is authorized for a commercial marina, the permit should typically specify that the facility will be open to the public. Boat ramps will generally not be permitted for exclusive use at single-family, two-family, and community docks based on the wide availability of public boat ramps.

Easements

- Publicly owned boat ramps available free of charge shall require an easement ([IDAPA 20.03.09](#)). All other boat ramps will typically require a submerged lands lease. Contact the Program Manager for questions regarding boat ramps.

Unimproved Ramps

- Unimproved or native boat ramps are discouraged, but allowed, providing the upland owner is not altering the lake,

riverbeds, or banks waterward of the OHWM or AHWL.

Construction Standards

- Concrete must be reinforced for added strength and durability. Concrete should not be poured below the ordinary high water mark unless the lake or river can be kept isolated from the concrete. Pouring concrete into water is prohibited due to the effects on aquatic biota. Reinforced slabs may be poured into forms above the waterline and then pushed into place. A cofferdam can also be constructed around the boat ramp area and the ramp can be poured in place. Other methods that keep the work area dry may be used at the department's discretion.
- All authorized boat ramps shall be constructed in a manner to protect the toe of the ramp from boats power loading and power unloading. This may be done by extending the concrete ramps past the prop wash zone, or by placing riprap at the ramp toe.
- Boat ramps shall be constructed to prevent the ramp from acting as a conduit for storm water run-off.
- Launch rails, if approved, shall be constructed during the low water season of the year. The rails shall be elevated eighteen (18) to twenty-four (24) inches above the lakebed surface to allow for natural drifting material.

Setbacks

- Single-family and joint two-family launch rail encroachments shall not be located closer than ten (10) feet to property, riparian or littoral right lines without the written consent of the adjacent property owner ([IDAPA 20.03.04.015.13.e](#)).
- Boat ramps shall not be located closer than twenty-five (25) feet to the property, riparian, or littoral right lines without the written consent of the adjacent property owner ([IDAPA 20.03.04.015.13.e](#)).

Riprap, Seawall, and Bulkheads Standards and Requirements

The following standards and requirements apply for riprap, seawalls, and bulkheads:

Near Shore Construction

- Riprap material shall be placed along the present contour of the shoreline and no riprap material shall be placed in excess of that necessary to stop erosion, except when in conformity with the Idaho Department of Fish and Game's recommended methods for enhancing near-shore fish habitats.

Construction Standards

- Riprap used to stabilize shorelines will consist of rock that is appropriately sized to resist movement from anticipated wave heights or tractive forces of the water flow. The rock shall be sound, dense, durable, and angular rock resistant to weathering and free of fines ([IDAPA 20.03.04.015.08.a](#)). The length of the stone shall be less than three (3) times its width or thickness. The riprap shall overlie a distinct filter layer which consists of sand, gravel, or nonwoven geotextile fabric ([IDAPA 20.03.04.015.08.a](#)). Such filters will always be required within the Coeur d'Alene basin. The riprap and filter layer shall be keyed into the bed below the ordinary or artificial high water mark, as applicable ([IDAPA 20.03.04.015.08.a](#)). Riprap used to protect the base of a seawall or other vertical walls may not need to be keyed into the bed and may not require a filter layer, at the Area's discretion ([IDAPA 20.03.04.015.08.b](#)). If the applicant wishes to install riprap with different standards, they must submit with their application a design that is signed and stamped for construction purposes by a professional engineer registered in the state of Idaho ([IDAPA 20.03.04.015.08.a](#)).
- Riprap shall be placed on a slope no steeper than 1.5H:1V to aid in wave energy dissipation. Where possible, cutbanks shall be sloped landward and rip rap placed on this slope to minimize encroachment onto the lakebed or riverbed.

- Permits to repair or replace existing unpermitted seawalls, bulkheads or other vertical walls shall be stipulated to require riprap material be placed at the toe along the entire wall face. It is important to get these structures under permit for inventory and historic purposes.
- Seawalls, bulkheads and other vertical walls shall not be permitted waterward of the OHWM or AHWL, except in unusual circumstances ([IDAPA 20.03.04.015.07](#)). Seawalls, bulkheads or other vertical walls built on state owned lakebeds or riverbeds and designed to protect upland property, if permitted at all, shall typically require an easement or lease.
- Seawalls, bulkheads or other vertical walls constructed at the OHWM or AHWL shall have riprap material placed at the toe along the wall face to provide for aquatic life, dissipate wave energy and protect wall integrity.

Jetties and Barbs

- Jetties and bank barbs shall generally not be permitted as a method of controlling erosion on lakes and slack waters of reservoirs administered by the Department for trust purposes. These types of encroachment can have adverse impacts to navigation and recreation.

Water Intake Systems and Utility Line Standards and Requirements

The following standards and requirements apply for water intake systems and utility lines:

Permitting

- Encroachment permits will be required for all water intake lines ([IDAPA 20.03.04.012.02](#)).

Setbacks

- Utility line encroachments shall not be located closer than twenty-five (25) feet to property and/or riparian or littoral right lines, without the written consent of the adjacent property owner ([IDAPA 20.03.04.015.13.e](#)).

Heat Pumps

- Heat pumps are generally not permitted because they are a nonnavigational encroachment and upland areas can be used for the same purposes. Area staff shall consult with, and receive approval from, Idaho DEQ prior to approving heat pumps that involve lines containing anti-freeze or other chemicals. Heat pumps must also follow the same screening and anchoring standards used for water lines.

Screen Diameter

- Water intakes shall be screened with a maximum screen mesh diameter of one-quarter (1/4) inch to keep aquatic life from being impacted, and approach velocities should be less than 0.5 feet per second.

Line Anchoring

- Any exposed water intake line shall be anchored to the bed of the lake with a nontoxic type of weight.

Orientation

- Water intake lines should typically be oriented perpendicular to the generalized shoreline ([IDAPA 20.03.04.015.13.c](#)).

Easements

- Utility line encroachments shall require an easement from the Department. Easements are only required for water intake lines that draw five (5) cubic feet per second (cfs) or more ([IDAPA 20.03.09.001.02](#)).

Fill Standards and Requirements

The following standards and requirements apply for fill:

High Standard for Approval

- Applications for fill placed waterward of the OHWM or AHWL will be approved only when a clear environmental, economic, or social benefit to the citizens of Idaho is apparent. Questions regarding the clear benefit should be discussed with the Area Supervisor and the Operations Chief in consultation with the Program Manager as needed ([IDAPA 20.03.04.030.02](#)).

Permits, Leases and Easements

- Fill material placed waterward of OHWM may require an easement or submerged lands lease ([IDAPA 20.03.09](#) and [20.03.17](#)). Fill placed between an OHWM and an AHWL will require an encroachment permit, but not an easement or lease.

Volume and Type of Fill

- If fill is proposed, the application shall state the volume and type of fill and include a cross-section of any excavation or fill including vertical and horizontal dimensions.

Other Encroachments Standards and Requirements

When processing other encroachments not included in the sections above, Areas should consult with the Operations Chief and Program Manager.

F. Private Moorage within Commercial Marinas

Creation of Private Moorage

Private moorage within a commercial marina is created through one or more of the following actions:

- Moorage contracts executed that last longer than one year ([IDAPA 20.03.04.015.03.a and .03.f](#)); or
- Moorage is obtained through a purchase, or other transfer of ownership, of real property including fractional ownership of the marina, littoral rights, and associated upland property ([IDAPA 20.03.04.015.03.a and .03.f](#)); or
- Moorage is obtained through a membership in a club or organization ([IDAPA 20.03.04.015.03.a and .03.f](#)).

Eligible Applicants

The applicant for a commercial marina with private moorage must be a condominium association, co-op, or other entity which owns the marina, littoral rights, and associated uplands sufficient to maintain and operate the marina ([IDAPA 20.03.04.015.03.i](#)).

Public and Private Use

Applications for commercial marinas with private moorage shall designate which moorage will be available for private or public use. Private moorage is limited to a maximum of 50% of the total moorage. One private float home moorage is equivalent to

either one public float home moorage or two public boat moorages ([IDAPA 20.03.04.015.03.e, .03.g, and .03.i](#)).

Comparable Moorage

Public moorage must be of similar size as private moorage at a commercial marina, except for float home moorage as noted above. Public and private moorage at the same facility must be of similar quality ([IDAPA 20.03.04.015.03.h](#)).

Access

All patrons of a commercial marina with private moorage must be provided with equivalent access to the facility ([IDAPA 20.03.04.015.03.d](#)).

G. Conversions involving Private Moorage

Permit Required

A new encroachment permit is required for commercial marinas to convert moorage between public and private usage. A maximum of 50% of the moorage may be private to retain commercial marina status. If more than 50% of the moorage will be private, then the marina must meet the community dock standards including square footage limitations ([IDAPA 20.03.04.015.03.b and .03.i](#)).

A new encroachment permit is required for community docks to convert to a commercial marina with private moorage. A maximum of 50% of the moorage may remain private, and community dock standards will no longer apply if the application is approved ([IDAPA 20.03.04.015.02.e](#)).